

**Before the
Federal Communications Commission
Washington, D.C. 20554**

IN THE MATTER OF

Unbundled Access to Network Elements

*Review of the Section 251 Unbundling
Obligations of Incumbent Local Exchange
Carriers*

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WC Docket No. 04-313

CC Docket No. 01-338

**COMMENTS OF THE PUBLIC SERVICE COMMISSION OF THE STATE OF
DELAWARE SUBMITTING SUMMARY OF STATE PROCEEDINGS**

The Public Service Commission of the State of Delaware (“Delaware”) respectfully submits these comments in response to the August 20, 2004 released *Order and Notice of Proposed Rulemaking (Interim Order and NPRM)*, FCC 04-179, 69 Federal Register 55128 (September 13, 2004) seeking input on a variety of issues related to the development of final network unbundling rules.

DELAWARE PUBLIC SERVICE COMMISSION
TRIENNIAL REVIEW PROCEEDING:
SUMMARY OF EVIDENCE AND ARGUMENTS OF THE PARTIES

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Delaware Public Service Commission Triennial Review Proceeding: Summary of Evidence and Arguments of the Parties

Executive Summary

The Delaware Public Service Commission responded to a filing¹ submitted by Verizon Delaware Inc. (“Verizon”) on December 1, 2003, by initiating a proceeding to investigate impairment for mass market switching and dedicated transport. In its filing, Verizon presented arguments and evidence to demonstrate a lack of impairment for mass market switching in Density Cell 1 for the Delaware portion of the Philadelphia-Camden-Wilmington Metropolitan Statistical Area (“MSA”). In addition, Verizon presented evidence that impairment does not exist for dedicated transport (at the DS3 and DS1 capacity level and for dark fiber) on 36 direct routes between pairs of Verizon wire centers with one or both ends in the Delaware portion of the Philadelphia LATA. Verizon asserted that its claims were conservative, since it contended that the filing only provided evidence in cases where “the evidence is plain and undisputable,” and because it relied entirely on a “triggers” rather than a “potential deployment” analysis². Verizon also stated that it believed that there were “undoubtedly” cases where the non-impairment trigger conditions were met for high-capacity loops, but in these cases the Competitive Local Exchange Carriers (“CLECs”) would have the most complete factual data³.

AT&T Communications of Delaware, LLC (“AT&T”) and Worldcom Inc. (“MCI”) responded to Verizon’s filing⁴ on December 22, 2003, and provided testimony⁵ on

¹ Verizon Delaware Inc.’s Petition to Initiate Proceedings in the Matter of the Consideration of the Triennial Review Order of the Federal Communication Commission Related to Access to Unbundled Network Elements (PSC Docket No. 03-446), December 1, 2003 (“Verizon Petition”) Direct Testimony of Witnesses Harold E. West, III and Carlo Michael Perduto, II on Behalf of Verizon Delaware Inc., December 1, 2003 (“West/Perduto Testimony”).

² Verizon Petition, pp. 2-3.

³ Verizon Petition, p. 2.

⁴ AT&T Communications of Delaware, Inc.’s and TCG Delaware Valley, Inc.’s Reply to Verizon Inc.’s Petition to Initiate Proceedings in the Matter of the Consideration of the Triennial Review Order of the Federal Communication Commission Related to Access to Unbundled Network Elements (PSC Docket No. 03-446), December 22, 2003 and Comments of Worldcom, Inc. to Petition to Initiate Proceedings in the Matter of the Consideration of the Triennial Review Order of the Federal Communication Commission Related to Access to Unbundled Network Elements (PSC Docket No. 03-446), December 22, 2003 (“MCI Comments”).

February 11, 2004, presenting arguments and data that they claimed contradicted Verizon's evidence of non-impairment. AT&T and MCI attacked a number of the assumptions that Verizon made in its filing. In particular, for mass market switching, they questioned aspects of Verizon's mass market definition and whether two of the three trigger carriers presented by Verizon qualified. Addressing dedicated transport, they contended that Verizon's filing was based on "unfounded assumptions"⁶ rather than real evidence of self-provisioning or wholesaling.

The Delaware Public Service Commission suspended its proceeding by PSC Order No. 6385 on April 6, 2004, after release of the *USTA II* decision by the United States Court of Appeals for the District of Columbia Circuit. This suspension occurred after the parties filed written comments but prior to the scheduled evidentiary hearings. The Commission, therefore, has not entered a final order in this proceeding and has not otherwise reached any findings or conclusions regarding the issues raised in the case.

⁵ Direct Testimony of Robert J. Kirchberger and E. Christopher Nurse Statement 2.0 on Behalf of AT&T Communications of Delaware, LLC, February 11, 2004 ("Kirchberger/Nurse Testimony"); Direct Testimony of Robert J. Mayo, Ph.D. Statement 1.0 on Behalf of AT&T Communications of Delaware, LLC, February 11, 2004; Direct Testimony of Michael D. Pelcovits on Behalf of Worldcom, Inc., February 11, 2004 ("Pelcovits Testimony"); Direct Testimony of Earle Jenkins on Behalf of Worldcom, Inc., February 11, 2004; and Direct Testimony of Mindy Chapman on Behalf of Worldcom, Inc., February 11, 2004.

⁶ Kirchberger/Nurse Testimony, p. 90

Mass Market Switching

Verizon Delaware Inc.'s Position

Since Verizon was not able to determine clearly whether CLECs in Delaware are providing wholesale local switching, they relied entirely on a self-provisioning trigger analysis to support their case, which they limited to Density Cell 1 of the Delaware portion of the Philadelphia-Camden-Wilmington Metropolitan Statistical Area. The first step in Verizon's analysis was to define the relevant market for mass market switching together with the cross over point at which it is economical for a multi-line DS0 loop customer to be served by a single DS1 loop. Verizon proposed to address the cross over issue by examining how the customers are currently served by CLECs. Verizon contended that any customer served by a CLEC with DS0 loops should be considered in the "mass market" no matter how many loops the customer has.

Given these assumptions, Verizon presented a Line Count Study that identified:

by wire center, all CLECs leasing loops below the DS1 level, that is, 2-wire or 4-wire stand-alone voice grade loops (including EELs), from Verizon as of June 30, 2003. In addition, Verizon counted the number of individual UNE loops ordered at each customer address (not merely each building address, since there may be multiple customer addresses within a building). Verizon counted affiliated carriers as a single carrier to avoid double-counting affiliates within a particular wire center. In addition, Verizon did not count CLECs that provide solely data services over copper loop facilities, without offering voice services.⁷

Verizon claimed that:

the data show that there are a total of three unaffiliated CLECs currently serving mass market customers with their own switches in this area. In addition to the objective evidence that they are serving mass market customers from the Line Count Study, each of these carriers holds themselves out as providing voice service to residential or business customers, or both, in Delaware. ... This clearly satisfies the self-provisioning trigger in each of these markets.⁸

⁷ West/Perduto Testimony, p. 19.

⁸ West/Perduto Testimony, pp. 19-20.

Verizon stated its belief that its line count analysis undercounts the competition for mass market switching, since it does not take into account carriers providing service via IP telephony. It also ignores mass market customers in apartment buildings and multi-tenant office buildings for which the separate DS0 lines are aggregated onto DS1 facilities.

Regarding the batch hot cut process in Delaware, Verizon filed a proposal for new hot cut processes and permanent rates on September 27, 2004.

Positions of the Competitive Local Exchange Carriers (“CLECs”)

The principal contention of the CLECs was that Verizon had not demonstrated that all the carriers Verizon proposed for satisfaction of the self-provisioning trigger are actually offering service to all classes of customers and offering service in more than a limited portion of the geographic area of the market it defined.

AT&T did not object to Verizon’s market definition. MCI, on the other hand, questioned Verizon’s market definition, and recommended that the markets be defined at the wire center rather than the MSA level. MCI questioned Verizon’s inclusion of all customers currently served by DS0 loops, regardless of how many loops they have at a single location. MCI also asserted that Verizon must demonstrate that a trigger carrier “actively serves the entire residential and mass markets”⁹ and suggested a series of tests that should be applied to demonstrate that a trigger candidate qualifies¹⁰. These tests included considerations of the candidate’s current activity in the market, willingness to offer service to most customers, quality and cost of service, and the ability to overcome economic and operational barriers to provide continuing service. MCI and AT&T both claimed that only one of Verizon’s proposed trigger candidates provides service to residential customers in Delaware and that one of the other two carriers provides service in “insubstantial” volumes in only two of the eight wire centers identified by Verizon in its filing.¹¹

⁹ MCI Comments, pp. 9-10.

¹⁰ Pelcovits Testimony, pp. 54-59.

¹¹ Kirchberger/Nurse Testimony, p. 33; Pelcovits Testimony, p. 66.

Dedicated Transport

Verizon Delaware Inc.'s Position

In its petition, Verizon presented evidence that 36 pairs of Verizon wire centers with one or both ends in the Delaware portion of the Philadelphia LATA (which they interpreted as representing 36 direct dedicated transport routes) meet one or both of the FCC's triggers for DS3 and DS1 facilities and dark fiber. Of the 36 routes, three are in the Philadelphia LATA that both originate and terminate in Delaware and 33 are routes with one end of the route in Delaware. In addition, Verizon claimed that all 36 routes meet the wholesale provider trigger and seven also meet the self-provisioning trigger. Verizon claimed that its approach was conservative since it inspected only four of the central offices which is less than 15 percent of those in Delaware. These routes are listed in Appendix A.

Verizon asserted that it is reasonable to assume that a CLEC has a transport route between Verizon wire centers if it has fiber in those centers. Verizon states that in its experience:

when carriers in Verizon's territories deploy their own fiber transport facilities they typically deploy fiber optic rings that connect to their points-of-presence (or 'POPs') in the LATA and various customer premises, in addition to connecting to Verizon's wire centers. Therefore, if the same carrier has fiber-based facilities in two Verizon wire centers in a LATA, it is very reasonable to assume that those fiber facilities are part of a CLEC-operated ring and that traffic can be routed from one Verizon wire center to the other. It is also reasonable to assume that these CLEC-operated fiber rings connect to the CLEC's POP, and that traffic can flow to and from all parts of the carrier's network through the POP.¹²

In addition, Verizon stated that there is "no doubt that fiber transport facilities are *capable* of operating at various levels of capacity; the capacity of the fiber is almost entirely a function of the electronics that a carrier attaches, not something inherent in the fiber itself."¹³ Furthermore, Verizon noted that fiber optic cable can be "channelized" by "attaching the appropriate electronics at both ends of the fiber cable to provide these

¹² West/Perduto Testimony, p. 35.

¹³ West/Perduto, Testimony, p. 36.

various capacities. For example, lower capacity DS1 and DS3 facilities are channelized simultaneously within the larger capacity OC12 or OC48 facility.”¹⁴ Verizon claimed that there is “considerable public evidence that competing carriers deploy DS3 and DS1 circuits over their OC transport facilities in Delaware.”¹⁵ Verizon used tariffs and other evidence to support this contention.

Verizon asserted that it is appropriate to assume that the facilities contain dark fiber because “[i]t is a truism ... that all fiber transport facilities, regardless of the capacities at which they now operate, once consisted entirely of dark fiber. Put differently, evidence of ‘lit’ fiber automatically is evidence that a carrier has self-provisioned dark fiber.”¹⁶ Furthermore, “as a matter of basic network engineering and sound economics, the vast majority of self-provisioned fiber transport facilities will have spare fibers.”¹⁷

Based on these considerations, Verizon assumed that if the self-provisioning trigger was satisfied for a route, the result was applicable to both DS3 and dark fiber. Similarly, Verizon assumed that if the competitive wholesale facilities’ trigger was satisfied, the result was applicable to DS1, DS3, and dark fiber. Verizon examined the websites of the carriers and the New Paradigm CLEC Report 2003 for evidence that the carriers provide wholesale service. Verizon also asserted that:

[t]he vast majority of competing carriers that have deployed fiber transport facilities for their own use have also indicated in public statements and filings that they will lease those facilities to other carriers. For this reason, based on the criteria that Verizon used to identify which carriers offer transport facilities at wholesale ..., the same pairs of Verizon wire centers that meet the self-deployment trigger also meet the wholesale trigger.¹⁸

Verizon contended that the condition that the transport facilities be operationally ready “is satisfied if a carrier has an operational collocation arrangement and has pulled fiber into that arrangement (generally known as ‘fiber-based collocation’).”¹⁹ To determine

¹⁴ West/Perduto Testimony, p. 28.

¹⁵ West/Perduto Testimony, p. 37.

¹⁶ West/Perduto Testimony, p. 39.

¹⁷ West/Perduto Testimony, p. 39.

¹⁸ West/Perduto Testimony, pp. 32-33.

¹⁹ West/Perduto Testimony, p. 26.

whether the transport facilities are operationally ready, “Verizon conducted physical inspections of *all* collocation arrangements included in this triggers case. Inspectors checked each collocation facility in those Verizon wire centers to verify that there is powered equipment in place (*i.e.*, it is operational), and that the collocating carrier had non-Verizon fiber optic cable that both terminated at its collocation facility and left the wire center.”²⁰

Positions of the Competitive Local Exchange Carriers

AT&T’s principal arguments regarding Verizon’s evidence on the dedicated transport triggers were as follows:

1. “Backhaul” or “entrance” facilities should not be included as endpoints for the analysis of dedicated transport facilities.
2. “[O]ne cannot automatically conclude that two offices on a ‘ring’ are necessarily connected in a manner that allows traffic to pass between them simply because a common cable sheath passes through each.”²¹ This is because the two offices could be on different fibers in different tubes within the sheath, and “even if the two ILEC offices were on the same ring, it is not generally the case that the CLEC’s network is designed to and operationally ready to be used to pass traffic between the two offices.”²² The “transport routes linking the two central offices are not generally provisioned in such circumstances because the CLEC’s primary interest is connecting the retail customer location to its network.”²³
3. Verizon’s assumption is wrong that “if a carrier has lit fiber then it automatically has dark fiber into collocations at a pair of Verizon wire centers, and that the carrier is self-providing and wholesaling DS1 and DS3 capacity as well as dark fiber between those wire centers.”²⁴ AT&T claimed that “a reasonable assumption is that even if there is an actual path between two Verizon wire centers, it is most likely provisioned at an OCn level of capacity for data

²⁰ West/Perduto Testimony, pp. 33-34.

²¹ Kirchberger/Nurse Testimony, p. 72.

²² Kirchberger/Nurse Testimony, p. 72.

²³ Kirchberger/Nurse Testimony, pp. 72-73.

²⁴ Kirchberger/Nurse Testimony, p. 79.

networking purposes, which would make it inapplicable for the self-provisioning trigger.”²⁵

4. It is not correct to assume that a dedicated transport connection can use a switch to complete the path.
5. Verizon’s assumption is wrong that “the same pairs of Verizon wire centers that meet the self-provisioning trigger also meet the wholesale trigger.”²⁶ AT&T contended that for the wholesale trigger Verizon must demonstrate that other CLECs can access the facilities in a reasonable and non-discriminatory manner and the facilities must be widely available.

AT&T made assertions concerning its own operations with some supporting data as evidence of most of these points.

In summary, AT&T stated that Verizon’s collocation survey “proves nothing more” than “that a number of CLECs have deployed fiber facilities ... in Delaware that enter CLEC collocations at certain Verizon wire centers.... [T]he survey cannot show whether the fiber is lit or unlit, and if lit at what capacity levels, and if unlit whether it is ‘terminated’ within the collocation and points in between. The survey says nothing about the route one fiber takes when it leaves a Verizon wire center, nor what electronics may be attached in between.”²⁷

MCI provided relatively few comments on the dedicated transport issue, mainly noting that Verizon needed to provide more evidence that there is actual deployment of facilities along the routes identified. Both AT&T and MCI noted that most (33) of the 36 routes identified by Verizon are interstate routes.

Respectfully submitted,

Bruce H. Burcat

On behalf of the Delaware
Public Service Commission

²⁵ Kirchberger/Nurse Testimony, p. 79.

²⁶ Kirchberger/Nurse Testimony, p. 84.

²⁷ Kirchberger/Nurse Testimony, p. 99.

Appendix A

**Dedicated Transport Routes in Delaware
That Verizon Claims Meet the Triggers²⁸**

| Wire Center 1 | Wire Center 1 Name | Wire Center 2 | Wire Center 2 Name | Count Of >=3 Self- Providers | Count Of >=2 Wholesale Providers |
|---------------|--------------------|---------------|--------------------|------------------------------------|---|
| AMBLPAAM | AMBLER | WLMGDEWL | WILMINGTON | 3 | 3 |
| ARMRPAAR | ARDMORE 1 | WLMGDEWL | WILMINGTON | 3 | 3 |
| BCYNPABC | BALA CYNWYD | WLMGDEWL | WILMINGTON | 3 | 3 |
| HTBOPAHB | HATBORO | WLMGDEWL | WILMINGTON | 3 | 3 |
| PHLAPALO | LOCUST 1 | WLMGDEWL | WILMINGTON | 3 | 3 |
| PHLAPAMK | MARKET 1 | WLMGDEWL | WILMINGTON | 3 | 3 |
| PHLAPAPE | PENNYPACKER 1 | WLMGDEWL | WILMINGTON | 3 | 3 |
| AMBLPAAM | AMBLER | NWRKDENB | NEWARK | 0 | 2 |
| AMBLPAAM | AMBLER | TLVLDETV | TALLEYVILLE | 0 | 2 |
| ARMRPAAR | ARDMORE 1 | NWRKDENB | NEWARK | 0 | 2 |
| ARMRPAAR | ARDMORE 1 | TLVLDETV | TALLEYVILLE | 0 | 2 |
| BCYNPABC | BALA CYNWYD | NWRKDENB | NEWARK | 0 | 2 |
| BCYNPABC | BALA CYNWYD | TLVLDETV | TALLEYVILLE | 0 | 2 |
| BRYMPABM | BRYN MAWR | WLMGDEWL | WILMINGTON | 0 | 2 |
| CNSHPACN | CONSHOHOCKEN | WLMGDEWL | WILMINGTON | 0 | 2 |
| HTBOPAHB | HATBORO | NWRKDENB | NEWARK | 0 | 2 |
| HTBOPAHB | HATBORO | TLVLDETV | TALLEYVILLE | 0 | 2 |
| KGPRPAKP | KING OF PRUSSIA | WLMGDEWL | WILMINGTON | 0 | 2 |
| NRTWPANR | NORRISTOWN | WLMGDEWL | WILMINGTON | 0 | 2 |
| NWRKDENB | NEWARK | PHLAPALO | LOCUST 1 | 0 | 2 |
| NWRKDENB | NEWARK | PHLAPAMK | MARKET 1 | 0 | 2 |
| NWRKDENB | NEWARK | PHLAPAPE | PENNYPACKER 1 | 0 | 2 |
| NWRKDENB | NEWARK | TLVLDETV | TALLEYVILLE | 0 | 2 |
| NWRKDENB | NEWARK | WAYNPAWY | WAYNE | 0 | 2 |
| NWRKDENB | NEWARK | WCHSPAWC | WEST CHESTER | 0 | 2 |
| NWRKDENB | NEWARK | WLMGDEWL | WILMINGTON | 0 | 2 |
| PAOLPAPA | PAOLI | WLMGDEWL | WILMINGTON | 0 | 2 |
| PHLAPALO | LOCUST 1 | TLVLDETV | TALLEYVILLE | 0 | 2 |
| PHLAPAMK | MARKET 1 | TLVLDETV | TALLEYVILLE | 0 | 2 |
| PHLAPAPE | PENNYPACKER 1 | TLVLDETV | TALLEYVILLE | 0 | 2 |
| TLVLDETV | TALLEYVILLE | WAYNPAWY | WAYNE | 0 | 2 |
| TLVLDETV | TALLEYVILLE | WCHSPAWC | WEST CHESTER | 0 | 2 |
| TLVLDETV | TALLEYVILLE | WLMGDEWL | WILMINGTON | 0 | 2 |
| TRPRPATR | TROOPER | WLMGDEWL | WILMINGTON | 0 | 2 |
| WAYNPAWY | WAYNE | WLMGDEWL | WILMINGTON | 0 | 2 |
| WCHSPAWC | WEST CHESTER | WLMGDEWL | WILMINGTON | 0 | 2 |

²⁸ All routes are in the Philadelphia LATA (LATA 228).